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#### **ABSTRACT**

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The construction and validation of a theoretically based sign system for the analysis of teaching roles in childhood education is described. A theoretical and empirical approach to validation were developed. In the first, the general concept of teacher role was identified as a viable construct for investigating characteristic patterns of classroom teaching behavior. Four recognizable roles were derived: acquisition role mother-surrogate role, inquiry role, and authenticity role. After extensive field testing, and revision of the measurement instrument, 84 items were assumed to be congruent with the theory of teaching described by the role paradigm. The instrument was designated the acronym TRACE -Teaching Role Analysis in Childhood Education. Empirical validation was attempted by making observational records of the classroom behavior of teachers in selected Follow Through models which were tentatively identified as prototypes for three of the hypothetical roles, i.e., all except the mother-surrogate role. A seven-model sample was selected to provide empirical validation of both the theoretical framework and the discriminative power of the classroom observation system TRACE. For three of the specified teaching roles, the predicted mode of teaching emphasis emerged as predominant within the patterns of behavior characteristic for the groups of teachers in the first sample. For the mother-surrogate role group, the predominant mode of teaching behavior was maneuvers to induce Conformity and Compliance. Results of the data analysis indicate that the observation system TRACE has great potential for discriminating among teachers classroom behaviors. Both theoretically and empirically, the observation system seemed to be a valid measure of the construct teaching role. (CK)

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# DEVELOPMENT AND VALIDATION OF AN OBSERVATION SYSTEM FOR ANALYZING TEACHING ROLES

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Purpose of the Study

Unresolved problems of validation raise serious questions about the usefulness of systems for observation of classroom teaching. It is doubtful whether any observation system is truly "value-free" or "objective." The usefulness of data gathered by an observation system is determined to a great extent by the explicitness of the conceptual base or theoretical framework on which the system is structured, and to the extent to which in actual use it differentiate between teachers or groups of teachers. The purpose of this study was to develop a classroom observation system that could be validated both theoretically and empirically. This paper describes the construction and validation of a theoretically based sign system for the analysis of teaching roles in childhood education.

Methodology

Two approaches to validation were developed: (a) theoretical and (b) empirical.

Theoretical. In building a valid observational system, it is essential to specify the theory of teaching on which it is based in order to have confidence in and to interpret the data generated. The general concept of teacher role was identified as a viable construct for investigating characteristic patterns of classroom teaching behavior.

It was necessary to develop a paradigm that would specify the theoretical components of teaching role and guide selection of appropriate signs or items to be included in the instrument.

Interactive teaching in classrooms for the young was seen as a series of ordinary and varying maneuvers designed to keep the children involved in activities the teacher believes to be related in some peripheral way to learning goals she holds for her pupils (Jackson, 1968). The assumption was that characteristic differences in clusters of teaching behaviors give rise to the construct teaching role, and that differing and discernible patterns of teaching behavior can be identified by appropriate systematic classroom observation procedures. The theory was that differences in characteristic teaching behaviors that result in recognizable teaching roles are differences in degree of emphasis, not in kind: i.e., differences (1) in extent of imposition of adult authority and (2) in extent of use of subject matter. A role model developed by Sieber and Wilder (1967) delineates these two metadimensions that apparently underlie and differentiate teaching roles:

		Emphasis on (high)	subject matter (low)
Relations between teacher	(Adult-	Content-	Control-
	centered)	oriented	oriented
and child	(Child-	Discovery-	Sympathy-
	centered)	oriented	oriented

The dimension extent of imposition of adult authority is frequently debated in terms of "teacher-centered" versus "child-centered," "work" rather than "play," "direct" versus "indirect" teaching. Controversial stances on imposition of subject matter are often expressed as "textbook-centered" versus "activity-oriented" teaching, "telling" versus "teaching," "acquisition" versus "inquiry,". Within each quadrant of this role model a unique teaching emphasis was identified.

high authority imposition and high content focus	high authority imposition and low content focus			
low authority imposition and high content focus	low authority imposition and low content focus			

The principal goal of each of these teaching emphases was assumed to be:

Mastery of	Conformity and
Content	Compliance
Productive	Autonomy and
Thinking	Self-Actualization

A basic presupposition of the study was that most teachers would exhibit all four types of emphasis in their interactive classroom teaching behaviors, but in characteristically differing proportions. That is, childhood education teachers could be expected to employ various teaching maneuvers\* intended to foster:

- 1. social conformity and compliance to rules and standards
- 2. mastery of subject matter or content
- 3. inquiry, critical thinking, or learning-to-learn skills
- 4. skills of social interaction and development of self-actualization

  It was postulated that teaching role would be evidenced by the emergent mode of emphasis within a pattern of teaching behaviors. No derogation was implied in any role description; each emphasis is assumed to have its appropriate function in the education of the young and each role its proponents.

Based on these assumptions, four recognizable and theoretically defensible teaching roles for childhood education were logically derived, as delineated in the research paradigm:

<sup>\*</sup>categories of teaching maneuvers adapted from Joyce & Harootunian (1967, pp. 94-96)



Acquisition Role	Mother-Surrogate Role
Goal Emphasis: Mastery of content	Goal Emphasis: Conformity and compliance
Inquiry Role	Authenticity Role
Goal Emphasis: Productive thinking	Goal Emphasis: Autonomy and self- actualization

These four teaching roles are commonly described in childhood education literature. For example, Katz (1971) labels them the maternal model, the instructional model, the facilitator of learning model, and the therapeutic model.

A tentative observation schedule was developed by first compiling a theoretically relevant list of teaching behaviors assumed to be characteristic of each role, comprised of items selected from the prescriptive and descriptive literature on childhood education methodology. From a pool of some 50 possible signs for each theoretical mode of teaching, potential items were combined, reworded, or eliminated as necessary, keeping in mind Medley and Mitzel's three criteria for signs (1963,p. 302): present tense, positive occurrence, singular number. Additional criteria were that all items included must be legitimate teaching behaviors, positive in nature and intent, and defensible within some theory of teaching. The plan was to include only items that could be identified through teachers' verbal behaviors. However, it was found that some signs could be actuated by either verbal or nonverbal behaviors; in addition, a few items that fit theoretically would generally describe nonverbal (although occasionally verbal) behavior and were retained on the lists.

Field testing of the lists verified that the teaching behavior items retained did indeed occur in preschool and primary classrooms. The preliminary

4



observation record consisted of 94 items which were reduced to 84 after numerous revisions. These items were classified as either person-oriented or task-oriented, an assumption derived from the two principal axes of the role paradigm, as well as from studies reported by Kerlinger and Pedhazur (1967). Items were grouped according to four broad function categories (Openshaw and Cyphert, 1966):

- 1. teacher regulates learning activity
- 2. teacher solicits responses
- 3. teacher supports learning activity
- 4. teacher evaluates

Items were organized so as to facilitate differentiation. Within each teaching function, the first group of items was assumed to be person-oriented, the second group of items to be task-oriented. Within these two groups, items were paired according to theoretical focus or mode of emphasis:

Person-oriented (1st group of items)	Maneuvers to induce conformity and compliance (Mode C)
	Maneuvers to induce autonomy and self-actualization (Mode A)
Task-oriented (2nd group of items)	Maneuvers to induce mastery of content (Mode M)
	Maneuvers to induce productive think- ing (Mode P)

After extensive field testing and revision of the instrument, the 84 behavior items were assumed to be congruent with the theory of teaching described by the role paradigm. The instrument was then assumed to have content validity, and was designated by the acronym TRACE - Teaching Role Analysis in Childhood Education (see Appendix).



## Empirical Validation

Empirical validation was attempted by making observational records of the classroom behavior of teachers in selected Follow Through models. Within these experimental programs, instructional strategies are highly specified and supported by intensive in-service procedures; thus teachers within a Follow-Through model can be expected to exhibit theoretically similar teaching behaviors. Presuppositions were that (1) within Follow Through models teachers would exhibit a wider range of teaching behaviors than teachers in conventional classrooms, due to the experimental emphasis within each model; (2) within any given Follow Through model the teachers would exhibit behaviors more nearly resembling the instructional strategies idiosyncratic to the model than would teachers not teaching in a Follow Through model; (3) prototypes for certain teaching roles could be tentatively identified from the descriptive literature for Follow Through models, on the basis of specified goals and teaching strategies which could be judged to fit a role theoretically. Thus if data from observation records using TRACE would discriminate between groups of teachers in the various models and in the direction that would be predicted by the designated theoretical orientation of the Follow Through model, evidence would be provided that would validate the instrument, both theoretically and empirically.

of the hypothetical teaching roles. No Follow Through model was found that fit the Mother-surrogate role, which was assumed to exist in conventional classrooms for young children. Three additional and theoretically similar Follow Through models were included in the validation sample. The seven-model sample was deliberately selected to provide empirical validation of both the theoretical framework and the discriminative power of the classroom observation system, TRACE.



The "Academically Oriented" or Engelmann-Becker program (formerly the Bereiter-Engelmann model) was identified as a prototype of the Acquisition role on the basis of the sponsors' stated position that the primary concern of the model was to teach academic skills and to teach them rapidly (Bereiter & Engelmann, 1966, p. 1).

The Inquiry role required as prototype an instructional model that gave first emphasis to development of cognitive skills through provision of varied and concrete learning activities. Several Follow Through models claimed such a focus, but the "Cognitively Oriented" model (Weikart, 1971) appeared most likely to exemplify the inquiry-discovery mode.

The Authenticity role seemed to be most closely related to the "Continuing Growth Plan" or "Open Classroom" model developed by Armington (1969), which stressed the "importance of autonomous motivation as well as the interrelatedness of feeling and thought (Maccoby & Zellner, 1970, p. 31)."

Three other Follow Through models were identified for additional observation and data collection: the "Responsive Environments" model, the Bank Street College of Education model, and the Tucson Early Education model. From their literature, the assumption was made that their instructional strategies were rather similar and not clearly prototypic of either the Inquiry role or the Authenticity role, although giving considerable emphasis to both modes of teaching.

Follow Through centers visited for data collection were not necessarily those that would have been identified by the sponsors as most representative of their model; they were those that were accessible to the investigator. Directors of each program were asked to identify the four teachers they felt best exemplified the instructional format of the model. Classroom teaching behavior records were obtained in 24 Follow Through classrooms (6 different models) and in 4 non-Follow Through classrooms, for the validation sample. When the



instrument was found to discriminate among characteristic patterns of teaching behaviors in the predicted theoretical direction for each instructional model, a second empirical investigation was undertaken to provide additional validation of TRACE. Four observers were trained to use the observation system, obtaining 85% inter-observer agreement with the principal investigator after some 15 hours of training. These 5 trained observers then obtained teacher behavior records in 40 conventional primary and preschool classrooms throughout the southeast region of the United States. The four hypothetical teaching roles were identified within the second sample of TRACE records obtained from teachers whose characteristic teaching emphasis could not be predicted.

## Findings

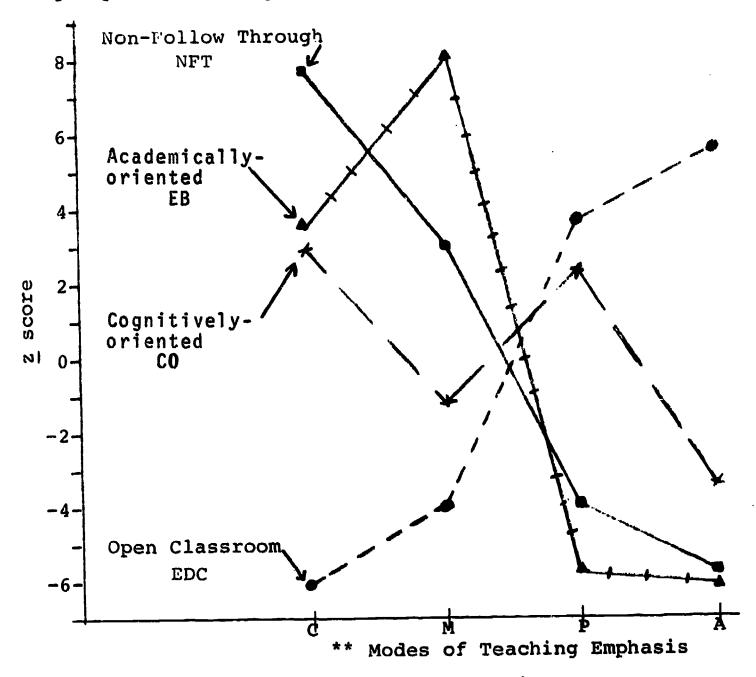
Data were TRACE records for 68 teachers. They were analyzed to (1) identify patterns of behavior which would describe teaching roles; (2) identify specific teaching behavior items which differentiated among teaching roles. The Cattell Pattern Analysis was the statistical technique used for identifying teaching behavior pattern similarities, after quantitative data had been converted to proportion scores. An additional correctational technique identified the items within each mode that were discriminative among groups of teachers in the validation sample.

## Data Collected in Follow-Through Models:

For three of the specified teaching roles, the predicted mode of teaching emphasis emerged as predominant within the patterns of behavior characteristic for the groups of teachers in the first sample (Figure 1). For the Mother-surrogate role group (4 non-Follow Through teachers) the predominant mode of teaching behavior was maneuvers to induce Conformity and Compliance; for the Acquisition role group (Becker-Engelmann model) the predominant mode was Mastery of Content; for the Authenticity role group (Open Classroom model) the predominant mode was Autonomy and Self-actualization. The Inquiry role was not so



Fig. 1. Profiles of Pattern Similarity for Modes of Teaching Emphasis (TRACE,) for Role Groups of Phase I Sample



Indexes of Pattern Groups	Similarity Correlation Coefficient	Probability Level
Non-Follow Through, Academically Oriented	77	.01
Non-Follow Through, Cognitively Oriented	86	.01
Non-Follow Through, Open Classicom	97	.01
Academically-Oriented, Cognitively Oriented	92	.01
Academically-Oriented, Open Classroom	97	.01
Cognitively-Criented, Open Classroom **Teacher behaviors used to induce:	92	.01

C=Conformity and Compliance

M=Mastery of Content

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P=Productive Thinking

A=Autonomy

clearly exemplified by the "Cognitively Oriented" group of Follow Through teachers as had been predicted; the predominant mode of teaching behavior for this group was indeed Productive Thinking, but this mode was exceeded in proportion of teaching emphasis by Mode C (Conformity and Compliance). Within the validation sample, the Authenticity role group exceeded the Inquiry role group in use of Productive Thinking teaching maneuvers.

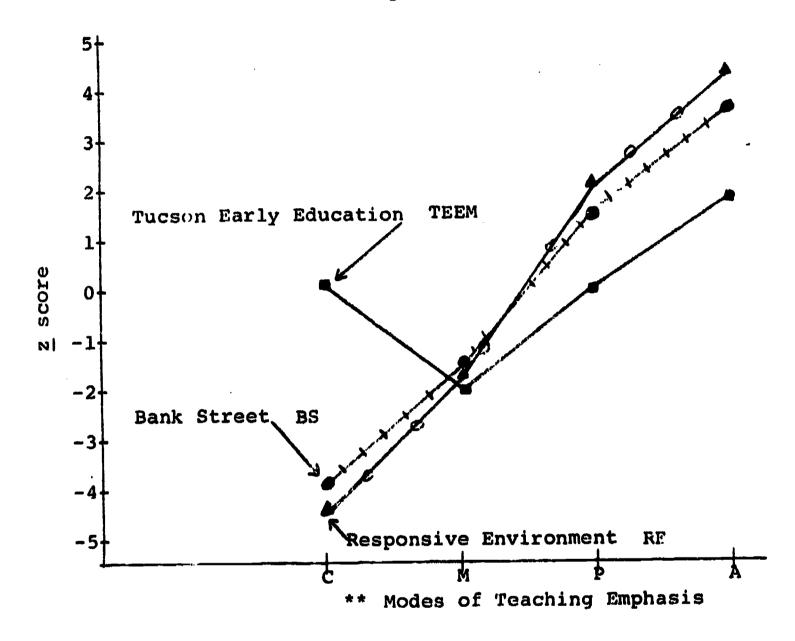
The three additional Follow-Through models not identified as role prototypes were presumed to lie within the theoretical extremes of instructional strategies represented by the "Academically-Oriented" and "Open Classroom" models. As shown in Figure 2, the "Responsive Environments" group and the Bank Street group exhibited very similar patterns of teaching behaviors and could well have served as prototypes for the Authenticity role, since their predominant mode of teaching emphasis was Autonomy and Self-Actualization. The Tucson Early Education group exhibited a slightly predominant emphasis on Mode A behaviors, but gave nearly equal emphasis to Modes C and P.

# Data Collected in Non Follow-Through Classrooms:

On the basis of a tentative cutting score profile procedure for identification of teaching roles, four groups of teachers fro the second study sample were selected as prototypes for the hypothesized teaching roles. The role groups of this sample exhibited the characteristic and predominant mode of teaching emphasis (Figure 3) delineated in the research paradigm: the Mother-surrogate group was highest on Mode C (Conformity and Compliance), the Acquisition groups was highest on Mode M, the Inquiry group was highest on Mode P, and the Autheniticity group was highest on Mode A. Additional evidence was provided that predicted patterns of teaching emphasis had been identified for each of the four specified teaching roles.



Fig. 2. Exofiles of Pattern Similarity for Modes of Teaching Emphasis (TRACE,) for Additional Instructional Groups, Phase I Sample



Indexes of Pattern Similarity

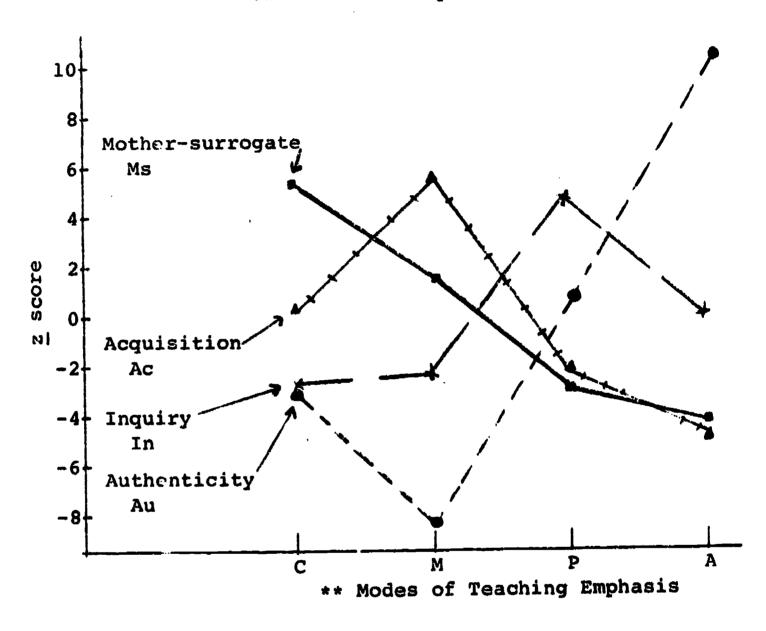
Groups	Correlation Coefficient	Probability Level
Tucson Early Education, Responsive Environment	65	.01
Tucson Early Education, Bank Street	52	.01
Responsive Environment, Bank Street:	.73	.02

\*\*Teacher behaviors used to induce: C=Conformity and Compliance M=Mastery of Content

P=Productive Thinking A=Autonomy



Fig. 3. Profiles of Pattern Similarity for Modes of Teaching Emphasis (TRACE<sub>2</sub>) for Role Groups of Phase II Sample



Indexes	of	Pattern	Similarity
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Groups	Correlation Coefficient	Probability Level
Mother-surrogate, Acquisition	74	.01
Mother-surrogate, Inquiry	92	.01
Mother-surrogate, Authenticity	97	.01
Acquisition, Inquiry	92	.01
Acquisition, Authenticity	97	.01
Inquiry, Authenticity	91	.01

\*\*Teacher behaviors used to induce: C=Conformity and Compliance M=Mastery of Content

P=Productive Thinking A=Autonomy



## Specific Items Which Distinguish Between Roles:

Certain teaching behaviors distinguished (.05 level of significance) each role group in the two samples of childhood education teachers. Some behavior items exhibited by the Mother-surrogate groups were:

"Has P spend time waiting, listening, taking turns"

The Acquisition role groups were characterized by such behaviors as:

The two groups of Inquiry teachers were distinguished by these behaviors and others:

"Directs P attention to readily available resources"

The Authenticity role groups were distinguished by certain behavior item, including:



<sup>&</sup>quot;Restricts verbal give and take"

<sup>&</sup>quot;Responds quickly to P request for aid; anticipates need"

<sup>&</sup>quot;Tells P behavior rule or reminds reason unspecified or authority oriented"

<sup>&</sup>quot;Implies evaluation of rule-related behavior; moralizes"

<sup>&</sup>quot;Centers activity around single resource"

<sup>&</sup>quot;Keeps focus of learning activity at verbal level"

<sup>&</sup>quot;Asks for unison response; drills"

<sup>&</sup>quot;Tells content focus; delivers information"

<sup>&</sup>quot;Makes use of written symbols as end in itself"

<sup>&</sup>quot;Asks data recall question"

<sup>&</sup>quot;Enables P to manipulate, compare, sort, classify"

<sup>&</sup>quot;Asks P to amplify response or support with evidence"

<sup>&</sup>quot;Asks question requiring P to organize data"

<sup>&</sup>quot;Asks question directed toward divergent or evaluative response"

<sup>&</sup>quot;Serves as learner-participant-helper"

<sup>&</sup>quot;Enables freedom of movement, 'messing around'"

<sup>&</sup>quot;Interacts socially, humorously with P"

- "Utilizes P interest or activity for content focus"
- "Accepts P feelings; shares similar feelings"
- "Enables articulation/interchange of ideas"
- "Directs P attention to readily available resources"
- "Enables P to choose activity or partners or plan procedures"

### Conclusions

Results of data analysis indicate that the observation system TRACE has great potential for discriminating among teachers' classroom behaviors. Patterns of teaching behavior related theoretically to specified roles were clearly identified. It was found that the behavior of teachers could be differentiated in terms of characteristic modes of teaching emphasis, not only in highly structured Follow-Through models but in conventional classrooms as well. Specific behaviors which discriminated among roles or styles as well as those which were common to all teachers in the samples were identified. It was found that teaching roles were distinguished not so much by differing kinds of classroom behaviors as by differences in the proportions of common behaviors which all teachers used. Both theoretically and empirically the observation system seemed to be a valid measure of the construct teaching role.

Although systematic observation has enjoyed increasing utilization in research designs, validity of the systems has been assumed to exist with little or no empirical data to support such assumption. This is the first reported attempt to develop a methodology for validating a classroom observation system both theoretically and empirically. The teaching behavior record, TRACE, was found to be a sensitive instrument in identifying teaching role. It can be utilized to provide systematic feedback for preservice and inservice teacher training, as well as for further research on teaching roles in childhood education.



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# TRACE: Teaching Role Analysis in Childhood Education

## Ground Rules

- 1. TRACE provides an analytic framework for observing and recording the <u>interactive</u> classroom teaching behaviors of one teacher. If aides or another teacher are working in the same room, observation should be limited to practices of only one beacher per observation.
- 2. TRACE is designed to be used across the classroom day, during any setting or transitional period. In an unfamiliar classroom, the observer should allow at least 5 minutes for orientation before starting to mark.
- 3. Each marking period is of 3 minutes duration. A sign is marked only once during each period it occurs, no matter how often during that 3 minutes. Provision is made for up to 30 minutes of observation per record. The same teaching behavior may be checked appropriately under several different signs. Some signs may be recognized and marked at once; other signs may emerge over time. The focus, however, is on overt behaviors rather than inferred behaviors.
- 4. ALL TRACE items of teaching behavior would find support and be recommended within some theory of teaching. If the observer identifies items that seem to him to be "good" or "bad," this is a reflection of his own theoretical bias. The assumption is that the emphasis exhibited across the teacher's rarge of behaviors reflects the teacher's goals for that particular teaching period.
- 5. TRACE items are grouped by teaching functions:

1.00 REGULATES: initiates, terminates, maintains, develops, stimulates

2.00 SOLICITS: asks. seeks. elicits response

3.00 SUPPORTS: expresses confidence, accepts, empathizes, assists

4.00 EVALUATES: stereotypes, opines, appraises

Within each teaching function, the first group of items is assumed to be personoriented; the second group of items is assumed to be task-oriented. Teaching behavior items are paired to aid in differentiation, according to the theoretical teaching mode (focus or emphasis):

(1st group)

Person-oriented

Conformity/compliance (Mode C)

Maneuvers to induce

autonomy/self-actualization (Mode A)

(2nd group)

Task-oriented

Maneuvers to induce mastery of subject matter/content (Mode M)

Maneuvers to induce productive thinking (Mode P)



# PEACHING ROLE ANALYSIS in CHILDHOOD EDUCATION

Oħ	ser	ve	n	#			$T\epsilon$	ea	ch	er	# Grade Level Setting
-ot	10	9	3	7	5	5	4	3	2	1	1.00 Teacher REGULATES learning situation
	一	Ŧ	1	+	7		F	F	T		1.01 Interacts with all P or stated group
		十	+	十	1		lacksquare	t	+	1	1.02 Interacts with one or few P
}		-+-	+	+	1		1-	†	<del>†</del> -		1.03 Specifies activity/procedure/partners; gives task directions
Ç			7	+	+	_	1	卜	†		1.04 Permits P to choose activity, partners, plan procedure, make sug
		-	-	+	7		<b>†</b>	┢	†		1.05 Tells P behavior rule/reminds, reason unspecified/authority orie
		+	+	+	7		1	Τ	十		1.06 Reminds/develops behavior rule, giving functional explanation
		-	十	+	7	-	1	十	+		1.07 Has P spend time waiting, listening, taking turns
			7	+	7			†	1	П	1.08 Encourages P to utilize available time for activity
		1	ı	ı	١		l		1	1	rather than waiting
		十	7	十	7			T	$\top$		1.09 Restricts P movement, use of materials
		_	7	+	7	-	1	1	1		1.10 Enables freedom of movement, use of materials, "messing around"
		_	1	1	٦		1	1	1		1.11 Directs, commands
			1	7	┪		1	1	+		1.12 Serves as learner-participant-helper
			7	╡	7	=	+	†	╈		1.13 Initiates/terminates activity
		+	+	十	-		十	十	十	$\vdash$	1.14 Uses P cue to initiate/terminate activity
<del>                                     </del>	$\vdash$	+	1	╅	ᅥ		+	╁	+-	$\vdash$	1.15 Calls attention to neatness/orderliness in task format
<del>   </del>		+	+	-	┪			-	十	1	1.16 Encourages divergency, initiative in task format
<del>                                     </del>	$\vdash$	+	┪	+	-		╂─	╁╌	+-	Н	1.17 Centers activity around single resource (material)
<del>   </del>		+	┪	+	4		╁	┢	+-	H	1.18 Directs P attention to readily available resources
╂		-	┪	-	┨		-	╁	+	$\vdash$	1.19 Keeps focus of learning activity at verbal level
{}		$\dashv$	┥	╌	-		╁	┿	╁	$\vdash$	1.20 Enables P to manipulate, compare, sort, classify
<del>   </del>			+		-		-	╁	╁	$\vdash$	1.21 Makes use of written symbols as end in itself
₩	$\vdash$	${f H}$	┥		-		<del> </del>	╀	╁	ti	1.22 Makes use of written symbols relevant to P experience
╂──┤	-	-	┪	$\dashv$	4	_	╀╌	╀	+-	$\vdash$	1.23 Selects material for P to read (or to read to P)
╫╌╡	-	1	7	+	-		1-	1	†=		1.24 Enables P to choose Material to read (or to have read to)
#==		H	#	#	Π	Ш	#	=	#	=	
In			٦	2		6	1,	١,	١,	1,	2.00 Teacher SOLICITS responses
100			깈	4	3	<u> </u>	≝	₽	1	H	
		Ц	_			_	_	1	_	$\sqcup$	2.01 Restricts P verbal give and take
		$\Box$					Ļ	L	1_		2.02 Enables articulation/interchange of ideas, opinions, "small talk
		Ц	_		_	L	1_	L	丄		2.03 Solicits/entertains P report on behavior of other P
		Ц					1_	L	1_		2.04 Encourages P to decide what is his behavioral responsibility
		Ц		$\Box$	_	L	1_	Ļ			2.05 Seeks respect for tradition/authority
11				$\sqcup$		L		L	1	_	2.06 Solicits respect/concern for rights/needs of T/other P
		$\Box$			_	L	1	L	Ļ	<b> </b>	2.07 Continues other T tasks while listening to P
		$\square$		Ц		L	Ļ	Ļ		1_	2.08 Listens attentively to P (eye contact)
11						L		L			2.09 Asks rhetorical Q re, feelings, values, opinions
								1	1	1	2.10 Solicits articulation/discussion of feelings, attitudes, values
	11			П		Г	T	T	T	$\Gamma$	2.11 Asks task-related rhetorical O
	#	+		H	_	┢	+-	十	╅	十一	2.12 Solicits use of varied sources for additional data
₩	₩	H		H		╀	╁	╁	╁	╅	2.13 Asks for unison response: drills; asks Q that can be
11	11					1		Ĭ	1		answered with "yes" or "no"
+	#-	+-	۳	╅┪		十	+	+	+	1-	2.14 Asks Q directed toward divergent/evaluative responses
	╫─		_	<del> </del> !		t	+	+	十	+-	2.15 Asks data recall 0
	11	1	-	H		十	+	+	+	+-	2.16 Asks Q requiring P to organize/analyze data
	#	╁	-	╂┤		+	+	十	十	1	2.17 Amplifies P response by T telling/giving additional data
	#	+-	-	╁┤		╁	+	十	十	+-	2.18 Asks P to amplify response, support with evidence
<del>-  </del>	#	+	┝	╁┤		+	+	十	十	十	2.19 Solicits P attention as T demonstrates, solves
	#-	+	-	╂╼╂		╁	+	+	+	+	2.20 Involves P in identification/solution of problem/
			1			}					developing alternative routes
			_	11		1					WWW.



TRACE

Page 2

Obs	em	er	#					7	'ea	ch	er# Grade Level Setting
,,,,,	· (#2. (#		•								
Total	70	्	Ţ	7	7	5	4	3	2	7	3.00 Teacher SUPPORTS learning activity
-	$\stackrel{\sim}{=}$	╡	#	#	$\dashv$	$\stackrel{\scriptscriptstyle{\sim}}{=}$		Ш	Ш		
			4		4			<b>—</b>			3.01 Resolves P conflict quickly; redirects P  3.02 Permits P to resolve conflict with other P
		_	_	_	4	_ļ		_			3.03 Responds quickly to P request for aid; anticipates need
		}	4		4			-	-	$\vdash$	3.04 Refers P request for aid to other P who can help
			_	-+	4	_				-	3.05 Prevents P from going shead with activity T knows will fail
			_			-				-	3.06 Offers challenge; involves P in uncertain situations
			{	-	4	_			-	$\vdash$	3.07 Presents self as exemplary; justifies
				-}	$\dashv$	-	-	-	-	H	3.08 Admits mistake/inadequacy: laughs at self
			$\dashv$	{	$\dashv$			-	-		3.09 Ignores P comment re. personal matter; changes subject
		- ~		· · •		$\vdash$		-	$\vdash$	-	3.10 Accepts P feelings; shares similar feelings
				$\Rightarrow$	Н			<b>=</b> =	<b>!</b> =	H	
							L.	<u> </u>	_	Ш	3.11 Tells content focus; delivers information
				_		Ц	<u> </u>	<b> </b>	<b>L</b>	1	3.12 Utdlizes P interest for learning activity focus 3.13 Provides answer quickly if P does not know/calls on other "
					$\Box$	Ц	<u> </u>	<b> </b>	_	1_	3.13 Provides answer quickly if r does not know/caris on outside (mull/ponder)
								<u> </u>	<u> </u>		3.14 Gives P time to consider (mull/ponder) 3.15 Makes suggestion to aid data recall/gives hint/prompts
								▙	_	Щ	3.16 Translates P activity into verbal statement
						Ш	L	-	_	-	3.16 Translates P activity into versal statement  3.17 Repeats P statement verbatim/corrects P language
							_	<u> </u>	<u> </u>	<u> </u>	3.18 Reflects/paraphrases P statement
	<b></b>	_				Ц	-	-	-		3.19 Acknowledges data recall/contribution
		<u> </u>				-	L	<u> </u>	ļ	-	3.20 Acknowledges divergent/evaluative response, attempt at
	1								ł		organizational thinking
	<u></u>	<u> </u>			11		Щ	<u></u>	_		Olganizational thingsig
											A GO TO THE
Tot	10	9	8	2	6	5	4	3	12		4.00 Teacher EVALUATES
	1	Π	Γ				Γ			Ţ_	4.01 Calls P to bring work to T to check/correct
	#	1	Г			Γ					A 02 Coes to where P is working: observes at least 1 minute
	1	1	1			Γ	Г				A 03 Implies evaluation of rule-related behavior; moralizes
	1	1	T			Γ					4 04 Makes clear statement of behavior problem; no evaluation
	11	1	T		Γ	Γ		Γ			4.05 Opines P ability to do better; makes comparison
1	1	1	Γ		Γ		Γ		П	$\mathbf{I}$	4.06 Affirms P present qualities/status
	1	T									4.07 Gives tabgible reward for rule-related/"on task" behavior
				$\Gamma$	$\Gamma$	L			L		4.08 Exhibits awareness of P involvement in self-rewarding activity
	1	Ŧ	F	$\top$	T	1	T	$\top$	1	+	4.11 Delivers public evaluation of task/directs P to evaluate
	I	1	1	1	1	1	1		1	1	other F's work
<del> </del>	#-	╁╌	+-	+	十	十	†	十	+	十	4.12 Enables P to evaluate own work
	-#-	╁	╁	╀	┿	十	+-	╅╌	+-	╁	14 13 Tells criteria by which task is evaluated
<del> </del>	#-	+	+	+	+	+	+	十	十	+	4.14 Involves P in developing criteria for task evaluation
<del>  </del>	#-	+	+	+	†	+	†	†	+	+	1 4 15 Appraises det recall/contribution
-	<del>-  </del>	十	+	十	+	+	十	†	+	+	I / 16 tapraises P attempt at organizational/analytic thinking
#	#	+	+	+	十	+	†	+	†	十	1 / 17 Evaluates P growth in learning skills (stereotype/opines)
<del>  </del>	#	+	+	+-	†	†	†	†	†	十	1 / 18 Appraises evidence of divergent/evaluative thinking
╫	+	十	T	†	†	+	+	†	†	十	1 4.19 Evaluates P comments/activity re. appropriateness; makes
11	H	1					1	1	ł		clear distinction between work and play
11-	1	+	+	1	†	+	†	1	1	1	4.20 Appraises search or exploratory behavior
#	=#=	#	<u>+</u>	: 1	#	=	1	1	=	#	

